

CSCAPE 2005: NOAA Ship McArthur II
Weekly Science Report – Leg 1b

07 July, 2005

Karin A. Forney – Cruise Leader

SCIENCE SUMMARY: 30 June – 06 July 2005

This week marked the beginning of our second leg of CSCOPE, scheduled to leave Seattle, WA on July 5 and arrive in San Francisco, CA on July 24. First, I'd like to welcome our new participants to the cruise: marine mammal observers Holly Fearnbach, Tim O'Toole and Ernesto Vázquez; seabird observers Sophie Webb, Rich Pagen and Peter Pyle; Gulf of the Farallones researchers Jan Roletto and Sage Tezak; and Teacher-at-Sea, Kimberly Pratt from Cabello Elementary School in Union City, CA. I'd also like to welcome back our returning scientists, marine mammal observers Jim Cotton, Juan Carlos Salinas and Cornelia Oedekoven; and oceanographers Mindy Kelley and Liz Zele.

We spent the first few days of this past week setting things up on the *McArthur II* in Seattle and training the incoming scientists. With Robert Holland's help, all the computers were networked and up and running by Saturday morning. Unfortunately some computer-gremlins decided to carry out their mischief over the 4th of July weekend and as soon as we set sail on Tuesday the network started acting up. We're still trying to figure out what could have happened and how to get everything working properly again. But Chief ET Clay and I have managed to restore the most essential functions, at least.

The day before we set sail (7/4), the City of Seattle was kind enough to provide a spectacular fireworks display in our honor (I really think they shouldn't have gone through all the trouble). Many of us enjoyed prime viewing from the *Mac II's* flying bridge – we were only a few hundred meters from the fireworks barge, and some of the booms shook the whole ship.

We departed on schedule at 0930 on July 5th and proceeded to work our way from Lake Union out through the bridges and locks towards Puget Sound. Because of the holiday weekend, there was considerable congestion at Ballard Locks, and we didn't get to Elliot Bay until early afternoon. The EK60 calibration took about five hours, and Paul Fiedler, Alex DeRobertis, and Ben Saenz report that all was successful (thank you). We dropped them off late that evening and began our journey out into open waters of the Washington coast. By late morning on Wednesday, July 6th, we began effort on the large-scale CSCOPE grid, heading SSW. The day brought 37 sightings of humpback whales, Dall's and harbor porpoises, Pacific white-sided dolphins, an elephant seal, and some fur seals. Juan Carlos and Tim were successful in each obtaining one biopsy from bowriding dolphins. Nice work, Tim, for your first day on the biopsy job! Our sightings for the day were very consistent with the species seen during our first leg, which covered these waters of the Olympic Coast National Marine Sanctuary in greater detail.

We will continue to head southward on the large-scale transect lines during the next few days, and expect to begin fine-scale transects in Cordell Banks National Marine Sanctuary around Sunday, July 10th. That's all for now... Greetings to all on land! -Karin

Sightings and Effort Summary for Marine Mammals

Date	Start/Stop	Position Time	Total Distance	Avg. Beaufort
063005	In port – Seattle			
070105	In port – Seattle			
070205	In port – Seattle			
070305	In port – Seattle			
070405	In port – Seattle			
070505	Depart Seattle, calibrate EK60			
070605	0615	N48:16.71 W123:50.08	125.0 nmi	2.9
	2058	N46:52.02 W125:32.44		

CODE	SPECIES	WEEKLY TOTAL#	CSCAPE TOTAL#
017	Short-beaked common dolphin	-	1
022	Pacific white-sided dolphin	2	46
027	Northern right whale dolphin	-	13
037	Killer whale	-	4
040	Harbor porpoise	1	25
044	Dall's porpoise	13	56
046	Sperm whale	-	1
069	Gray whale	-	2
076	Humpback whale	12	115
077	unid. dolphin	3	22
079	unid. large whale	6	16
TOTAL		37	301

Note: Pinnipeds not included; mixed groups are counted once for each species.

Biopsies (Juan Carlos Salinas)

Species	Weekly	Cumulative
Humpback whale	-	12
Pacific white-sided dolphin	2	10
Northern right whale dolphin	0	2
TOTAL	2	24

Photo-Project (Cornelia Oedekoven and Holly Fearnbach)

On our first day out at sea on Leg 1b we encountered a large school of Pacific white-sided dolphins that offered nice lateral views and great photo opportunities as they approached the bow. During this sighting we also spotted a humpback whale that was milling in the vicinity. The whale was less cooperative as it only offered the right dorsal fin and not its fluke for show.

<u>Species</u>	<u>Weekly</u>	<u>Cumulative</u>
Humpback whale		
Catalog-quality flukes	0	40
Northern right whale dolphins*	-	4
Pacific white-sided dolphins*	1	6
Killer whales*	-	1
*number of groups photographed		

Bird Buzz (Sophie Webb, Rich Pagen and Peter Pyle)

Yesterday we had our first full day of seabird observation. We have great team out here this 2nd leg of the CSCAPE cruise. As with the previous leg we are expecting high densities of birds so have two birders observing at all times. This proved to be a wise decision as we steamed through an area off the coast of Cape Flattery. There were constant flocks of Sooty Shearwaters, Northern Fulmars and Black-footed Albatrosses with a scattering of Pink-footed Shearwaters, Rhinoceros and Cassin's Auklets, and Common Murres. We like these aggregations of birds that are a mixture of residents and long distance migrants: Sooty Shearwaters from New Zealand (and perhaps Chile), Pink-footed Shearwaters from the Juan Fernández Islands, Chile, Black-footed Albatrosses from the Hawaiian Islands, Fulmars from Alaska and the resident auklets and murres. It is an indication of just how productive the waters are off the West coast of the US.

Of interest were a Flesh-footed Shearwater amongst a large feeding flock of Sooties over Pacific white-sided dolphins and three South Polar Skuas. Currently we are well off shore, and life in the bird world has quieted considerably with only the occasional Leach's Storm-Petrel wandering through the census zone, a few distant phalaropes and a couple flocks of Least Sandpipers beginning their journey south.

Oceanographic Operations (Mindy Kelley, Liz Zele, and Lacey O'Neal)

Mindy, Liz, and Lacey have installed nice new Niskin bottles, and we expect to know by later tonight whether they are all working. Otherwise, all oceanographic ops are running smoothly. The computer-gremlins do not seem to have messed with the oceanographic computers – this time. Mindy is smiling.

<u>Date</u>	<u>CTDs</u>	<u>Bongo tows</u>	<u>XBTs</u>	<u>Comments</u>
07/06	1	1	2	